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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,850	11/25/2003	Nimrod Megiddo	ARC920030085US1	6569

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Frederick W. Gibb, III
McGinn & Gibb, PLLC
Suite 304
2568-A Riva Road
Annapolis, MD 21401

EXAMINER	
WU, JUNCHUN	
ART UNIT	PAPER NUMBER
2191	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,850	MEGIDDO, NIMROD	
	Examiner	Art Unit	
	Junchun Wu	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-25 are pending in this application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 19-25 are rejected under 35 U.S.C. 101 because claim limitations are directed towards computer program per se. The claimed invention is directed to non-statutory subject matter. A system claims fail to recite any hardware features required enabling the functionality.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a person unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Li (US Patent No. 6,144,954).

6. Per claim 1

Li discloses

- A method of instructing a computer program to self-optimize (col.1 lines 7-11).

method comprising:

- inputting commands into said computer program (col.10 lines 40-42, ..."the initial knowledge set to be associated with the computer software").
- allowing a learning protocol in said computer program to determine an approximate optimal policy of operation of said computer program based on said commands (col.9 lines 66-67 & col.10 lines 1-9; data and specifications are processed as commands and procedures CAP, CAE, CAT and CAO generated an optimization of data).

7. For claims 2,14, and 20

Li discloses

- commands comprise learning instructions (col.4 lines 57-59; knowledge base inherently have an artificial intelligence component. This Knowledge Base inherently suggests solutions to problems based on the feedback, and are capable of learning from experience).

8. For claims 3, 15, and 21

Li discloses

- commands comprise operational choices for said computer program to select from, wherein said operational choices include an approximate optimal choice for optimizing said operation of the computer program (col.21 lines 24-30; "...various

combinations of the selected control variables to determine the improving or optimizing").

9. For claims 4, 16, and 22

Li discloses

- commands comprise a selection command operable for selecting any function in a list of instructions inputted into said computer program, wherein said function provides a basis of making said approximate optimal choice (col.21 lines 16-22; "...a specific function may be a feature selected from the group consisting of...").

10. For claims 5, 17, and 23

Li discloses

- commands comprise a rule command operable for instructing said computer program of how to make said approximate optimal choice (col.14 lines 56-59; "...generates these and other similar rules in computer-coded form...").

11. For claims 6, 18, and 24

Li discloses

- commands comprise a reward command operable for instructing said computer program which of said operational choices results in said approximate optimal choice for optimizing said operation of the computer program (col.13 lines 41-46; "...rewards of the options, selecting the best option based on the ...").

12. Per claim 7

Li discloses

- A method of autonomically optimizing a computer program (col.1 lines 7-11), method comprising:
- specifying at least one choice point in said computer program (col.20 lines 5-9; there are various optimizing step like CAE, CAT, CAO and CAC).
- defining a set of alternate choices at each choice point (col.19 lines 58-62).
- setting at least one feedback point for each choice point (col.10 lines 10-11; "The optimization is sent from CAO step to feed back the information...").

13. Per claim 8

Li discloses

- allowing a learning protocol in said computer program determine an approximate optimal policy of operation of said computer program based on said specifying, defining, and setting (col.10 lines 54-60; "in all self-optimizing systems, the machine continuously gives the variable combinations or true set points ... learning systems dynamics models to be used").

14. Per claim 9

Li discloses

- set of alternate choices comprise operational choices for said computer program to

select from, wherein said operational choices include an approximate optimal choice for optimizing said operation of the computer program (col.21 lines 24-30; "...various combinations of the selected control variables to determine the improving or optimizing").

15. Per claim 10

Li discloses

- further comprising inputting a selection command into said computer program, wherein said selection command is operable for selecting any function in a list of instructions inputted into said computer program, wherein said function provides a basis of making said approximate optimal choice (col.21 lines 16-22; "...a specific function may be a feature selected from the group consisting of...").

16. Per claim 11

Li discloses

- further comprising inputting a rule command into said computer program, wherein said rule command is operable for instructing said computer program of how to make said approximate optimal choice (col.14 lines 56-59; "...generates these and other similar rules in computer-coded form...").

17. Per claim 12

Li discloses

- further comprising inputting a reward command into said computer program, wherein said reward command is operable for instructing said computer program which of said operational choices results in said approximate optimal choice for optimizing said operation of the computer program (col.13 lines 41-46; "...rewards of the options, selecting the best option based on the ...").

18. Per claim 13

Li discloses

- A program storage device readable by computer, tangibly embodying a program of instructions executable by said computer to perform a method of instructing a computer program to self-optimize (col.1 lines 7-11); method comprising
- inputting commands into said computer program (col.10 lines 40-42, ..."the initial knowledge set to be associated with the computer software").
- allowing a learning protocol in said computer program to determine an approximate optimal policy of operation of said computer program based on said commands (col.9 lines 66-67 & col.10 lines 1-9; data and specifications are processed as commands and procedures CAP, CAE, CAT and CAO generated an optimization of data).

19. Per claim 19

Li discloses

- A system for instructing a computer program to self-optimize (col.1 lines 7-11). comprising:

- a compiler operable for inputting commands into said computer program (col.10 lines 40-42, ..."the initial knowledge set to be associated with the computer software"; computer software may comprise compiler operable).
- a module operable for allowing a learning protocol in said computer program to determine an approximate optimal policy of operation of said computer program based on said commands (col.9 lines 66-67 & col.10 lines 1-9; data and specifications are processed as commands and procedures CAP, CAE, CAT and CAO generated an optimization of data).

20. Per claim 25

Li discloses

- A system of autonomically optimizing a computer program (col.1 lines 7-11)

method comprising:

- means for specifying at least one choice point in said computer program (col.20 lines 5-9; there are various optimizing step like CAE, CAT, CAO and CAC).
- means for defining a set of alternate choices at each choice point (col.19 lines 58-62).
- means for setting at least one feedback point for each choice point (col.10 lines 10-11; "The optimization is sent from CAO step to feed back the information...").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Junchun Wu whose telephone number is 571-270-1250. The examiner can normally be reached on 8:00-17:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Junchun Wu

WEI ZHEN
SUPERVISORY PATENT EXAMINER